In the Claims:

Claims 1-27 cancelled;

Claim 28 amended; and

Withdrawn claims 31-60.

1-27. (cancelled)

28. (currently amended) A method of thermally processing one or more regions of a substrate, comprising the steps of:

a. generating a continuous beam of radiation having a wavelength capable of heating the one or more regions to form an image having an operationally useful portion with ~~**a substantially uniform**~~ **an** intensity **uniformity of about ±2%**; and

b. scanning the beam of radiation over the one or more regions in a scan direction so that each point in the one or more regions receives an amount of thermal energy effective to process each of the one or more regions at a ~~**substantially uniform**~~ temperature **having a temperature uniformity produced as a result of the ±2% intensity uniformity**.

29. (original) The method of claim 28 wherein the substrate is monocrystalline and step b. is performed such that the image has a dwell-time over each point in the one or more regions of between a microsecond and a millisecond.

30. (previously presented) The method of claim 29 wherein the one or more regions include integrated circuits and wherein the operationally useful portion of the image has a dimension perpendicular to the scan direction of 1 cm or less.

31. (withdrawn) The method of claim 28 wherein:

the continuous beam of radiation has a first profile and

further includes the step of:

c. modifying the beam of radiation to form a second profile.

32. (withdrawn) The method of claim 31 wherein step c. modifies the beam of radiation such that the second profile forms an image having a substantially uniform intensity at the substrate.

33. (withdrawn) The method of claim 28 further includes the step of:

c. attenuating the beam of radiation to maintain the one or more regions at a select temperature.

34. (withdrawn) The method of claim 28 wherein:

the continuous beam of radiation has output power; and

further includes the step of:

c. varying the output power to maintain the one or more regions at a select temperature.

35. (withdrawn) The method of claim 28 further includes the step of:

c. forming a line image.

36. (withdrawn) The method of claim 35 further includes the step of:

d. aligning a long dimension of the line image relative to a plane defined by axes associated with incident and reflected beams of radiation.

37. (withdrawn) The method of claim 35 further includes the step of:

d. forming the line image by reflecting the beam of radiation from a cone-shaped mirror.

38. (withdrawn) The method claim 35 wherein:

the line image has a length L1 and a width L2; and

further includes the step of:

d. varying at least one of the length and width.

39. (withdrawn) The method of claim 28 further includes the step of:

c. measuring radiation reflected from the region of the substrate.

40. (withdrawn) The method of claim 28 further includes the step of:

c. measuring the temperature of the region of the substrate.

41. (withdrawn) The method of claim 40 wherein step c. includes the step of:

I. measuring radiation emitted from the substrate in two different spectral bands.

42. (withdrawn) The method of claim 40 further includes the steps of:

d. imaging a common region of the substrate in different spectral bands with respective detector arrays; and

e. comparing respective output signals from the detector arrays to determine a hottest point in the common region and a temperature of the hottest point.

43. (withdrawn) The method of claim 28 wherein the beam of radiation is polarized.

44. (withdrawn) The method of claim 43 further includes the step of:

c. rotating the polarization of the beam of radiation by one-quarter wavelength.

45. (withdrawn) The method of claim 43 further includes the step of:

c. altering the polarization of a first beam of radiation to form a circularly polarized beam of radiation.

46. (withdrawn) The method of claim 28 wherein:

the beam of radiation is p-polarized with respect to the substrate; and

further includes the step of:

c. irradiating the substrate with the beam of radiation at an angle equal to or near Brewster's angle.

47. (withdrawn) The method of claim 28 wherein:
the substrate is a monocrystalline semiconductor;
the beam of radiation is p-polarized; and
further includes the step of:

c. irradiating the substrate with the beam of radiation at an incident angle of between 65° and 80°.

48. (withdrawn) The method of claim 28 wherein step b. is performed in one of a boustrophedonic pattern, a spiral pattern, and an alternating raster pattern.

49. (withdrawn) The method of claim 28 further includes the step of:

c. varying the polarization of a first beam of radiation to maintain the substrate at a select temperature.

50. (withdrawn) The method of claim 28 wherein step b. is performed at a varying speed to maintain the substrate at a select temperature.

51. (withdrawn) The method of claim 28 wherein the wavelength of the first beam of radiation is between 9.4 and 10.8 microns inclusive.

52. (withdrawn) The method of claim 28 wherein step b., to minimize variations in radiation reflected from the substrate, includes the steps of:

I. scanning the beam of continuous radiation over the substrate;

ii. measuring a variation in the reflected radiation over a range of incident angles of a continuous first beam of radiation to determine an optimum incident angle

corresponding to a least variation in the amount of reflected radiation; and

iii. scanning at or near the optimum incident angle to thermally process the one or more regions.

53. (withdrawn) The method of claim 28 wherein step b., to minimize variations in maximum temperature produced on the substrate, includes the steps or:

I. forming an image from the continuous beam of radiation;

ii. scanning the image over the substrate;

iii. measuring a variation in maximum temperature produced at different locations on the substrate for each incident angle over a range of incidence angles to determine an optimum incident angle corresponding to the least amount of maximum temperature variation; and

iv. scanning at or near the optimum angle to thermally process the one or more regions.

54. (withdrawn) The method of claim 28 wherein:

the substrate is crystalline; and

step b. scans the image in a direction that minimizes the formation of slip planes in the substrate.

55. (withdrawn) The method of claim 54 wherein:

the substrate has crystal axes; and

step b. scans the image in a direction along one of the crystal axes.

56. (withdrawn) The method of claim 28 wherein:

the one or more regions include patterned features; and

further includes the steps of:

c. forming a line image with the continuous beam of radiation; and

d. irradiating the substrate with the continuous radiation beam at an incident

angle and with the line image at an image angle relative to the patterned features.

57. (withdrawn) The method of claim 56, wherein the incident angle and image angle are selected to minimize temperature variations over the one or more regions.

58. (withdrawn) The method of claim 57 wherein:

the substrate is crystalline; and

further includes the step of:

e. selecting the scan direction to minimize the formation of slip planes in the substrate.

59. (withdrawn) The method of claim 46 wherein the beam of radiation is generated by an array of laser diodes.

60. (withdrawn) The method of claim 59 wherein the wavelength of the beam of radiation from the diode array is between 0.6 microns and 1.5 microns.